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10/694,346

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Atsunori Sakurai

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WENDEROTH, LIND & PONACK, L.L.P.  
2033 K STREET N. W.  
SUITE 800  
WASHINGTON, DC 20006-1021

EXAMINER

NGUYEN BA, HOANG VU A

ART UNIT

PAPER NUMBER

2623

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/694,346	<b>Applicant(s)</b> SAKURAI ET AL.	
	<b>Examiner</b> Hoang-Vu A. Nguyen-Ba	<b>Art Unit</b> 2623	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 October 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some    \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/20/04</u> . | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This action is responsive to the application filed October 28, 2003.
2. Claims 1-22 have been examined. Claims 1, 14, 21 and 22 are independent claims.

#### ***Priority***

3. The priority date considered for this application is October 29, 2002, which is the filing date of the Japanese Patent Application No. JP-2002-313904. A certified copy of the priority application has been received and placed in the application file.

#### ***Oath/Declaration***

4. The Office acknowledges receipt of a properly signed oath/declaration filed October 28, 2003.

#### ***Information Disclosure Statement***

5. The Office acknowledges receipt of the Information Disclosure Statement filed January 20, 2004. It has been placed in the application file and the information referred to therein has been considered.

#### ***Drawings***

6. The drawings filed October 28, 2003 are accepted by the examiner.

#### ***Specification***

7. The specification is objected to because of the following minor informalities:
  - a. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

b. The Abstract contains more than 150 words. It is noted that reference numerals and the use of the clause “or the like” may be deleted to reduce the numbers of words.

c. The use of trademarks, such as JCTA Japan Cable Laboratories (p. 2), HITS Headend In The Sky (p. 6), has been noted in this application.

Trademarks should be capitalized wherever they appear and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in a manner which might adversely affect their validity as trademarks.

To expedite correction on this matter, the examiner suggests the following guidelines for Applicant to follow in amending the specification:

i. capitalize each letter of a trademark or accompany the trademark with an appropriate designation symbol, e.g., <sup>TM</sup> or ®, as appropriate;

ii. use each trademark as an adjective modifying a description noun. For example, it would be appropriate to recite “the JAVA platform” or “the JAVA programming language.” Note that in these examples, “platform” and “programming language” provide accompanying generic terminology, describing the context in which the trademark is used. By itself, the trademark JAVA specifies only the source of the so-labeled products, namely SUN Microsystems, Inc.

d. at p. 1, line 17, the term “contents” does not appear to agree with “it” at the end of the line; “content” should be in singular.

***Claim Rejections – 35 USC §112***

8. The following is a quotation of the second paragraph of the 35 U.S.C. § 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 21 and 22 are rejected under 35 U.S.C. §112 , second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

14. A single claim which claims both an apparatus and the method steps of using the apparatus is indefinite under 35 U.S.C. § 112, second paragraph. In *Ex parte Lyell*, 17 USPQ 2d 1548 (Bd. Pat. App. & Inter. 1990), a claim directed to an automatic transmission workstand and the method steps of using it was held to be ambiguous and properly rejected under 35 U.S.C. § 112, second paragraph.

In Claim 21, it is unclear whether a **system** (e.g., with content providing apparatus, relay stations, receiver, etc.) or a **process** (e.g., transmitting a content ..., receiving and retransmitting, etc.) is claimed. With a method recited in the preamble, one would expect to find in the body of the claim different steps for managing a relocation of the receiver. However, one only found different components such as those mentioned *supra*.

In Claim 22, it is unclear whether a **program** with instructions, which when executed by a processor, performs functions for managing a relocation of a receiver between stations in a conditional access system or a **process** (e.g., transmitting a content ..., receiving and retransmitting, etc.) is claimed. With a program recited in the preamble, one would expect to find in the body of the claim different instructions for managing a relocation of the receiver. However, one only found different components such as a content providing apparatus, relay stations, receiver, etc.

Appropriate correction is required.

***Claim Rejections - 35 USC § 101***

10. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

11. Claims 21-22 are rejected under 35 U.S.C § 101 because the claimed invention is directed to non-statutory subject matter.

**Claims 21 and 22**

A single claim which claims both an apparatus and the method steps of using the apparatus should also be rejected under 35 U.S.C. § 101, *Ex parte Lyell*, 17 USPQ 2d 1548 (Bd. Pat. App. & Inter 1990), based on the theory that the claim is directed to neither a “process” nor a “machine,” but rather overlaps two different statutory classes of invention set forth in 35 U.S.C. § 101 which is drafted so as to set forth the statutory classes of invention in the alternative only. *Id.* At 1551.

**Claim 22**

Claim 22 merely recites a program for managing a relocation of a receiver between stations in a conditional access system. The claimed program is written for the different claimed components (e.g., content providing apparatus, relay stations, receiver, etc.) to perform specific functions. The claimed program is merely computer program per se. Such claimed matter, which is functional descriptive material per se, is not statutory because it is not a physical “thing” nor a statutory process as there are no “acts” being performed. Such claimed computer program does not define any

structural and functional interrelationships between the computer program and other claimed aspects of the invention which permit the computer's program's functionality to be realized. Since a computer program is merely a set of instructions capable of being executed by a computer, the program itself is not a process, without the computer-readable storage medium needed to realize the computer's functionality. In contrast, a claimed computer-readable storage medium encoded with a computer program defines structural and functional interrelationships between the computer program and the medium which permit the computer program's functionality to be realized, and is thus mandatory. Warmerdam, 33 F.2d at 1361, 31 USPQ 2d at 1760. In re Sarkar, 588 F.2d 1330, 1333, 200 USPQ 132, 137 (CCPA 178). See MPEP §2106 (IV)(B)(1)(a).

Appropriate correction is required.

### ***Claim Rejections – 35 USC § 102***

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejection under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13. Claims 1-8 and 10-11 are rejected under 35 U.S.C. § 102(b) as being anticipated by Japanese Patent Application Publication No. 11-196400 by Hiroyuki et al. (“Hiroyuki”).

### Claim 1

Hiroyuki discloses at least *a conditional access system* (see at least DWGs. 1, 2, 5, 6, 9, 10) *comprising:*

*a content providing apparatus for transmitting a content to which only a receiver under contract for satellite TV subscriptions can have an access* (see at least DWG. 1, item 1/item 2; DWGs. 5A-B, items 1, 2; DWG. 9, company A (24A+25A+39A+72A)/B (24B+25B+39B+72B); DWG. 10, company A (124A+125A+139A+172A)/ B (124B+125B+139B+172B);

*a plurality of relay stations for receiving and retransmitting the content transmitted from the content providing apparatus* (see at least DWG. 1, items 3, 4; DWGs. 5A-B, items 3, 4; DWG. 9, items 3, 4; DWG. 10, items 103, 104); *and*

*a receiver for receiving the content retransmitted from one of the plurality of relay stations* (see at least DWG. 1, items 7; DWGs. 5A-B, item 7), *wherein the receiver includes:*

*a station identifier holding unit operable to hold a station identifier for identifying the relay station with which the receiver is under the contract for satellite TV subscriptions* (see at least DWG. 1, item 9; DWGs. 2-3, 6; DWGs. 5A-B, items 9A, 9B; DWG. 9, items 9A, 9B; DWG. 10, items 109a, 109B);

*a station identifier reception unit operable to receive a station identifier transmitted from the relay station* (see at least DWG. 1, item 5; DWGs. 5A-B, item 5);

*a judgment unit operable to judge whether or not the received station identifier and the station identifier held in the station identifier holding unit match* (see at least [0032-0039]); *and*

*a relocation-between-stations information transmission unit operable to transmit relocation-between-stations information to the content providing apparatus,*



*when the judgment unit judges that the received station identifier and the station identifier held in the station identifier holding unit do not match, said relocation-between-stations information including a receiver identifier which identifies the receiver (see at least [0032-0039]).*

## **Claim 2**

The rejection of base claim 1 is incorporated. Hiroyuki further discloses *wherein the relocation-between-stations information transmission unit transmits the relocation-between-stations information to the content providing apparatus, said relocation-between-stations information including, in addition to the receiver identifier, the station identifier received by the station identifier reception unit (see at least [0032-0039])* .

## **Claim 3**

The rejections of base claim 1 and intervening claim 2 are incorporated. Hiroyuki further discloses *wherein the relocation-between-stations information transmission unit transmits the relocation-between-stations information addressed to the content providing apparatus to the relay station from which the station identifier has been transmitted, and the relay station receives the relocation-between-stations information addressed to the content providing apparatus, which is transmitted from the receiver, and transmits the received relocation-between-stations information to the content providing apparatus (see at least [0028], [0035]).*

## **Claim 4**

The rejections of base claim 1 and intervening claims 2-3 are incorporated. Hiroyuki further discloses *wherein the content providing apparatus includes:*

*a reception unit operable to receive the relocation-between-stations information transmitted from the relay station (see at least DWG. 9, items 24A and 24B); and*

*a message transmission unit operable to transmit an Entitlement Management Message (EMM) for urging the receiver to sign up for a contract with the relay station indicated by the station identifier included in the relocation-between-stations information, said receiver being indicated by the receiver identifier included in the received relocation-between-stations information (see at least DWG. 9, items 70A, 70B, 39A, 39B and [0039]).*

### Claim 5

The rejections of base claim 1 and intervening claims 2-3 are incorporated. Hiroyuki further discloses *wherein the content providing apparatus includes:*

*a reception unit operable to receive the relocation-between-stations information transmitted from the relay station (see at least DWG. 9, items 24A and 24B); and*  
*a usage control unit operable to transmit a content with limited usage to the receiver indicated by the receiver identifier included in the received relocation-between-stations information (see at least [0048]).*

### Claim 6

The rejection of base claim 1 is incorporated. Hiroyuki further discloses *wherein the relay station includes a station identifier transmission unit operable to transmit, to the receiver, a station identifier which self-identifies said relay station, and the receiver further includes a station identifier storage unit operable to receive the station identifier transmitted from the relay station when a power is off at the receiver, and store the received station identifier in the station identifier holding unit (see at least DWG. 1, items 3, 4; DWGs. 2A-B, item "... ID;" DWG. 3, items A-B; DWG. 4, items A-B; DWGs. 5A-B, items 3,4).*

### Claim 7

The rejections of base claim 1 and intervening claim 6 are incorporated. Hiroyuki does not specifically disclose *wherein the station identifier transmission unit transmits the station identifier using Engineering Transport Stream (Engineering-TS)*. However, this transmission mode is deemed inherent to Hiroyuki since Hiroyuki transmits Entitlement Management Messages (EMMs) from the satellite operating company to the user (see at least DWGs. 9-10). Since an EMM is by definition a message dedicated to an individual end user or a group of end users granting access to that user of this group of users to the desired program(s), an EMM inherently contains the station and user identifiers (for detailed description of an EMM structure, see U.S. Patent No. 6,46,671 to Maillard et al., FIGs. 3, 10 and associated discussion in the disclosure). Without communication of EMMs using an engineering transport stream between the satellite operating company and the user, Hiroyuki would not be operative.

### Claim 8

The rejection of base claim 1 is incorporated. Hiroyuki further discloses *wherein the receiver further includes an IC card reading unit operable to read out an IC card identifier from a detachable IC card, and the relocation-between-stations information transmission unit transmits the relocation-between-stations information in which the IC card identifier read out by the IC card reading unit serves as the receiver identifier* (see at least [0032-0039]).

### Claim 10

The rejection of base claim 1 is incorporated. Hiroyuki further discloses *wherein the relocation-between-stations information transmission unit transmits the relocation-between-stations*

*information with an address indicated in an identifier of the content providing apparatus, which is notified in advance by the content providing apparatus using EMM (see at least DWGs. 9-10, e.g., EMM, EMM1, EMM2, PEMM1, PEMM2).*

#### **Claim 11**

The rejection of base claim 1 is incorporated. Hiroyuki further discloses *wherein the relocation-between-stations information transmission unit transmits the relocation-between-stations information addressed to the content providing apparatus to the relay station from which the station identifier has been transmitted, and the relay station transmits information including the relocation-between-stations information transmitted from the receiver and a self-identifying station identifier for identifying said relay station, as new relocation-between-stations information* (see at least [0032-0039],; DWGs. 9-10).

#### **Claim 14**

Since Claim 14 is an independent claim that recites *a receiver in a conditional access system* (see at least DWGs. 1, 2, 5, 6, 9, 10) comprising the elements of Claim 1, the same rejection is thus applied.

#### **Claim 15**

The rejection of base claim 14 is incorporated. Since Claim 15 recites the same features of Claim 2, the same rejection is thus applied.

#### **Claim 16**

The rejections of base claim 14 and intervening claim 15 are incorporated. Since Claim 16 recites the same features of Claim 3, the same rejection is thus applied.

**Claim 17**

The rejection of base claim 14 is incorporated. Since Claim 17 recites the same features of Claim 6, the same rejection is thus applied.

**Claim 18**

The rejection of base claim 14 is incorporated. Since Claim 18 recites the same features of Claim 8, the same rejection is thus applied.

**Claim 20**

The rejection of base claim 14 is incorporated. Since Claim 20 recites the same features of Claim 10, the same rejection is thus applied.

**Claim 21**

Since Claim 21 is an independent claim that recites *a relocation-between-stations management method for managing a relocation of a receiver between stations in a conditional access system* comprising the same functions performed by the components of Claim 1, the same rejection is thus applied.

**Claim 22**

Since Claim 22 is an independent claim that recites *a program for managing a relocation of a receiver between stations in a conditional access system* comprising instructions for executing the same functions performed by the components of Claim 1, the same rejection is thus applied.

14. The following is a quotation of the 35 U.S.C. § 103(a) which form the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 9, 12 and 19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Japanese Patent Application Publication No. 11-196400 by Hiroyuki et al. (“Hiroyuki”).

#### Claim 9

The rejection of base claim 1 is incorporated. Hiroyuki does not specifically disclose *wherein the receiver further includes a content usage history management unit operable to store, onto a detachable IC card, content usage history information indicating a content usage history of the receiver, read out the content usage history information from the IC card, and transmit the read-out content usage history information to the content providing apparatus, and the relocation-between-stations information transmission unit transmits the relocation-between-stations information when the usage history information is transmitted to the content providing apparatus.*

However, Hiroyuki does teach viewing-and-listening hysteresis information (i.e., the claimed usage history) that is stored on customer management system SMS 24 of each satellite operating company and that is exchanged between customer viewing-and-listening system SAS 25 of both satellite operating companies (see at least [0082-0086]). The examiner takes Official Notice that storing viewing-and-listening history is old and well established in the business of broadcasting television as a convenient way for the content provider to maintaining a record of the customer's viewing pattern for accounting purposes and providing programs that suit the

customer's preferences. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Hiroyuki's system in order to store the viewing-and-listening history on customer's premises instead of on the satellite company's facilities for the purpose of saving costs of providing and managing storage medium for the satellite company. These advantages are well known to those skilled in the art.

### **Claim 12**

The rejection of base claim 1 is incorporated. Hiroyuki does not specifically disclose *wherein the content providing apparatus is a Headend In The Sky (HITS) station for distributing the content to the plurality of the relay stations using a satellite communication, and each of the relay stations is a CATV station for retransmitting the content distributed from the content providing apparatus to the receiver via a cable.*

However, the examiner takes official notice that HITS is old and well known in the art (see the article entitled AT&T Broadband Consolidates Headend in the Sky, Digital Media Divisions – Brief Article, May 7, 2002, at [http://findarticles.com/p/articles/mi\\_m0BMD/is\\_86\\_8/ai\\_85500095](http://findarticles.com/p/articles/mi_m0BMD/is_86_8/ai_85500095)) for the purpose of reducing a cable system operator's required investment in satellite antennas.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to incorporate this concept in Hiroyuki for the same purpose discussed above.

### **Claim 19**

The rejection of base claim 14 is incorporated. Since Claim 19 recites the same features of Claim 9, the same rejection is thus applied.

16. Claim 13 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Japanese Patent Application Publication No. 11-196400 by Hiroyuki et al. (“Hiroyuki”) in view of U.S. Patent No. 6,466,671 to Maillard et al. (“Maillard”).

### **Claim 13**

The rejections of base claim 1 and intervening claim 12 are incorporated. Hiroyuki does not specifically disclose *wherein the relocation-between-stations information transmission unit transmits the relocation-between-stations information addressed to the content providing apparatus to the relay station via the cable, and the relay station transmits the relocation-between-stations information addressed to the content providing apparatus, which is transmitted from the receiver, to the content providing apparatus via a bi-directional communication network.*

However, in an analogous art, Maillard teaches a conditional access system (CAS) (see at least FIG. 2) comprising a relocation-between-stations information transmission unit (see at least FIG. 2, device 3002), one or more content providing apparatus (although not shown in FIG. 2, the content providing apparatus embodies the SMS device 3004), a relay station (see at least FIG. 2, device 3022). In Maillard’s CAS, the linkage between the SAS 3002 and the SMS 3004 uses cable (which is a transmission of copper wire such as T1 line which uses TCP/IP protocol to transmit data packets) and the linkage between communications server 3022 and the combination SAS 3002- SMS 3004 is a bi-directional network communication.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine the teaching of Hiroyuki with that of Maillard because the combined teaching would allow a dynamic creation (or removal) of zones in a smartcard (or ID card) which allows the rights afforded to the subscriber by means of the smartcard to be changed easily or quickly by EMMs that



are periodically transmitted by the broadcaster, received by the receiver/decoder and passed to the smartcard (Maillard, 1:33 – 2:28).

***Conclusion***

17. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoang-Vu "Antony" Nguyen-Ba whose telephone number is (571) 272-3701. The examiner can normally be reached on Tuesday-Friday from 7:00 am to 5:30 pm.

If attempts to reach the examiner are unsuccessful, the examiner's supervisor, John Miller can be reached at (571) 272-7353.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2600 Group receptionist (571) 272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free).



ANTONY NGUYEN-BA  
PRIMARY EXAMINER  
TECHNOLOGY CENTER 2100

August 29, 2007